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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte STEPHEN J. BROWN

Appeal 2009-013563
Application 09/665,442
Technology Center 3600

Before: HUBERT C. LORIN, JOSEPH A. FISCHETTI, and BIBHU R.
MOHANTY, *Administrative Patent Judges*.

FISCHETTI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

Appellant seeks our review under 35 U.S.C. § 134 (2002) from the Examiner's final rejection of claims 47-49, 51-62 and 77-110. Claims 1-46, 50 and 63-76 are canceled.

We affirm-in-part and enter a new grounds of rejection pursuant to 37 CFR § 41.50(b).

THE CLAIMED INVENTION

Appellant claims a multi-user remote health monitoring system which is capable of identifying a particular user in a number of different ways and can also be used for tracking and collecting patient data (Specification 1:20-22). Claim 47 is illustrative of the claimed subject matter:

47. A system for monitoring a physiological condition of an individual using a computer network, comprising:

a central processing unit (A) having access to one or more databases and (B) configured to perform operations according to monitoring application programming, the central processing unit comprising (i) programming code configured to generate a script program that collects measurement data relating to the physiological condition of the individual and (ii) further programming code configured to assign the script program to the individual;

a remote processing apparatus (i) connectable to a measuring device to receive the measurement data according to a collect command contained in the script program and (ii) connectable to the central processing unit to transmit the measurement data to the central processing unit according to a transmit command contained in the script program; and

a workstation connectable to the central processing unit to receive the measurement data so that a health care provider may review a report generated based on the measurement data.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Fujimoto	US 5,339,821	Aug. 23, 1994
Heinonen	US 6,421,633 B1	Jul. 16, 2002

REJECTIONS

The following rejections are before us for review.

The Examiner rejected claims 47, 55-57, 77, 84, 91, 98, 105, and 107-110 under 35 U.S.C §102(b) over Fujimoto.

The Examiner rejected claims 48-49, 51-54, 58-62, 78-83, 85-90, 92-97, 99-104, and 106 under 35 U.S.C §103(a) over Fujimoto and Heinonen.

ISSUES

Did the Examiner err in rejecting claim 47 over Fujimoto as disclosing a *script program* which instructs a remote processing apparatus to collect and transmit measurement data to a central processing unit, since Fujimoto discloses software transferred to remote medical equipment to cause the remote medical equipment to collect and transmit measurement data to a centralized host computer?

Did the Examiner err in rejecting claims 48-49, 51-54, 58-62, 78-83, 85-90, 92-97, 99-104, and 106 under 35 U.S.C. § 103(a) over Fujimoto and Heinonen, since Heinonen's U.S. filing date is later than the priority date of the application, even though Heinonen's foreign priority date is earlier?

FINDINGS OF FACT

We find the following facts by a preponderance of the evidence.

1. The Specification describes that a script program is software that is executed by a remote apparatus, stating, “Script programs 40 are executed by apparatus 26 to communicate queries and messages to a patient, receive responses 42 to the queries, collect monitoring device measurements 44, and transmit responses 42 and measurements 44 to server 18.” (Specification 9:33-10:2).
2. Fujimoto discloses the host computer generating a script program that is sent to the remote monitoring device for execution, stating, “the medical terminal equipment 1 is constructed so that it can store and execute a program transmitted to it from the host computer 5 ...” (Col. 8 ll. 62-66).
3. Fujimoto discloses a *remote processing apparatus connectable to a measuring device*, stating, “[t]he home medical system shown includes a medical terminal equipment 1 for measuring the blood pressure, the pulse, the electrocardiogram and so forth, and a user side communication apparatus or link 2.” (Col. 2 ll. 36-40).
4. The Specification describes that script programs are associated with a specific patient, by way of “Table 46 [which] contains a list of the patients and patient types to be monitored, and for each patient or patient type, a unique patient identification code, biometric enrollment information and a respective pointer to the script program assigned to the patient.” (Specification 10:3-6).
5. Fujimoto discloses a doctor creating a user-specific script program of questions for the *remote processing apparatus* to ask a patient, which is then transmitted to the *remote processing apparatus* (Col. 5 ln. 68 to Col. 6 ln. 9).

6. Fujimoto discloses creation of a script program for a specific patient, since “the questions for diagnosis inquiry can be designated for each user, diagnosis inquiry effective for the disease or the condition of a particular user can be performed.” (Col. 6 ll. 26-29).
7. Fujimoto discloses a script program executed at the *remote processing apparatus* to initiate collection of data from an attached medical measurement device, which in one embodiment measures blood pressure using a blood pressure arm band (Col. 4 ll. 14-59).
8. Fujimoto discloses the *remote processing apparatus* contains instructions to *transmit the measurement data to the central processing unit*, stating, “[t]he transmission of the data may be performed by accessing of the user side to the medical institution side or may be performed by accessing of the medical institution side so that the medical institution receives data stored in the user side communications apparatus 2.” (Col. 7 ln. 67 to Col. 8 ln. 4).
9. Fujimoto discloses a transmission of data that utilizes data compression before termination, such that “the transmission is completed in about 5 to 10 seconds or so.” (Col. 8 ll. 49-55).
10. Fujimoto discloses a *workstation* at the display unit, because the system “includes a host computer 5 with a display unit on the medical institution side, and the additional equipments such as a printer apparatus 6 and an external storage apparatus 7” (Col. 2 ll. 50-55).
11. Fujimoto discloses that each medical terminal equipment 1 unit has a registered number identifying it (Col. 3 ln. 65 to Col. 4 ln. 2).

12. Fujimoto discloses patient identification numbers “must be inputted in advance” if a medical terminal equipment 1 unit will be used by multiple patients (Col. 7 ll. 60-63).
13. Fujimoto discloses that the host computer 5/*central processing unit* can store results from thousands of patients in its storage media (Col. 8 ll. 14-21).
14. Fujimoto discloses that medical data is transmitted to the host computer 1/*central processing unit* where it is viewed (Col. 8 ll. 8-14).
15. Fujimoto discloses instructions to ask a user if they are ready to measure their blood pressure, and giving guidance to connect the arm band of the measuring device to do so. (Col. 4 ll. 14-34).
16. Fujimoto discloses the removable connection of a *measurement device* to a *remote processing apparatus* in that a “pair of measuring electrodes 18 for measuring an electrocardiogram are removably connected to a front portion of the medical terminal equipment 1 by way of a cable 19.” (Col. 3 ll. 3-6).

ANALYSIS

Rejection under 35 U.S.C. § 102(b)

Claims 47 and 55-57

The rejection is affirmed as to claims 47 and 55-57. Appellant does not provide a substantive argument as to the separate patentability of claims 55-57 that depend from claim 47, which is the sole independent claim among those claims. Therefore, we address only claim 47, and claims 55-57 fall with claim 47. *See*, 37 C.F.R. § 41.37(c)(1)(vii)(2004).

Appellant argues, “[n]owhere in the above text, or in any other section does Fujimoto appear to mention programming code generating a script program that collects measurement data relating to the physiological condition of the individual.” (Appeal Br. 17).

We are not persuaded by Appellant’s argument. The Specification describes that a script program is software for execution by a *remote processing apparatus* (FF 1), and we find Fujimoto discloses such executable computer software, because Fujimoto discloses software programming in a host computer 5 sending a “program” to the medical terminal equipment 1 (*remote processing apparatus*) for execution (FF 2) to collect medical information from the patient (FF 3), which we find meets the claim language (i) *programming code configured to generate a script program that collects measurement data relating to the physiological condition of the individual*.

Appellant next argues, “[n]owhere in any of the cited text, or in any other section does Fujimoto appear to mention any programming code configured to assign a script program to an individual.” (Appeal Br. 18).

We are not persuaded by Appellant’s argument. The Specification describes that assignment is an association between a program for execution at the *remote processing apparatus* and a patient (FF 4), and we find Fujimoto discloses sending an executable program designated for a particular patient to the *remote processing apparatus* for use by the particular patient (FF 5, 6), thus meeting the claim language (ii) *further programming code configured to assign the script program to the individual*.

Appellant argues, “[n]owhere in the cited text does Fujimoto appear to mention a measuring device to receive measurement data according to a collect command contained in a script program.” (Appeal Br. 20).

We are not persuaded by Appellant’s argument, because we find Fujimoto discloses a series of instructions to collect measurement data from a measuring device attached (FF 3) to a *remote processing apparatus* (FF 7). Therefore, we find Fujimoto meets the claim limitation *a remote processing apparatus (i) connectable to a measuring device to receive the measurement data according to a collect command contained in the script program*.

Appellant next argues, “[n]one of the cited text, or any section of Fujimoto appears to mention a transmit command in a script program causing measurement data to be sent from the medical apparatus 8 to the host computer 5.” (Appeal Br. 21).

We are not persuaded by Appellant’s argument, because we find Fujimoto discloses instructions in the program sent from the *central processing unit* to the *remote processing apparatus* which, by virtue of the inherent command characteristics of software, executes a *command* as part of the programming that causes the *remote processing apparatus* to transmit *measurement data* to the *central processing unit* (FF 8), thus meeting the claim limitation *(ii) connectable to the central processing unit to transmit the measurement data to the central processing unit according to a transmit command contained in the script program*.

Appellant final argues, “[n]othing in Fujimoto hints at a workstation, let alone expressly discloses an actual workstation. Furthermore, the Examiner does not offer any explanation as to what element of Fujimoto is allegedly similar to the claimed workstation.” (Appeal Br. 22).

We are not persuaded by Appellant's argument. We broadly interpret *workstation* to be a computer terminal, and we find Fujimoto discloses a computer terminal comprising a display unit attached to the host computer 5 at the medical institution (FF 8), which we find meets the claim language *a workstation connectable to the central processing unit to receive the measurement data so that a health care provider may review a report generated based on the measurement data*.

Claims 77 and 91

Initially, we note that the Appellant argues independent claims 77 and 91 together as a group (App. Br. 23, 28). Correspondingly, we select representative claim 77 to decide the appeal of these claims, with remaining claim 91 standing or falling with claim 77. *See*, 37 C.F.R. § 41.37(c)(1)(vii) (2004).

Claim 77 recites, in pertinent part, a method comprising the steps of (A) *storing a script assignment that associates the script program with the individual*; (B) *connecting the central processing unit with the remote processing apparatus*; (C) *transferring the script program from the central processing unit to the remote processing apparatus*; (D) *executing the script program in the remote processing apparatus to collect measurement data from the measuring device*; and (E) *transmitting the measurement data from the remote processing apparatus to the central processing unit upon execution of a transmit command of the script program*.

Appellant argues, "nowhere in the cited text, or in any other section does Fujimoto appear to mention an act of storing a script assignment that associates a script program with an individual." (Appeal Br. 24).

We are not persuaded by Appellant's argument, because as we found above, Fujimoto *assigns/associates/designates* the program with an individual by sending stored instructions to the *remote processing apparatus* associated with an individual (FF 5, 6), therefore meeting the claim language (A) *storing a script assignment that associates the script program with the individual*.

Appellant argues, "the Examiner does not cite any text or elements in the figures of Fujimoto in rejecting both (C) the transferring step and (D) the executing step." (Appeal Br. 25).

We are not persuaded by Appellant's argument, because we find Fujimoto discloses transferring instructions from the *central processing unit/host computer 5* to the *remote processing apparatus/ medical terminal equipment 1* (FF 2), which executes to collect measurements from the device (FF 3, 7), thus meeting the claim language (C) *transferring the script program from the central processing unit to the remote processing apparatus; (D) executing the script program in the remote processing apparatus to collect measurement data from the measuring device*.

The remainder of the arguments as to claims 77 and 91¹ are substantially similar to the ones already addressed as set forth above at claim 47.

Claims 84 and 98

Initially, we note that the Appellant argues independent claims 84 and 98 together as a group (App. Br. 28). Correspondingly, we select

¹ We assume the reference to claim 79 on page 28 of the Reply Brief is a typographical error in which claim 91 was intended, since it falls in the section arguing claims 77 and 91, and claim 79 is argued separately.

representative claim 84 to decide the appeal of these claims, with remaining claim 98 falling with claim 84. *See*, 37 C.F.R. § 41.37(c)(1)(vii) (2004).

Claim 84 recites, in pertinent part, a method comprising the steps of (A) *transmitting the script program through a communication link from the central processing unit to the remote programming apparatus*; (B) *disconnecting the communication link after the scrip program has been transmitted*; (C) *collecting measurement data in the remote processing apparatus as received from the measuring device according to a collect command of the script program*; (D) *connecting the communication link between the remote processing apparatus and the central processing unit after the measurement data has been collected*; and (E) *transmitting the measurement data from the remote processing apparatus to the central processing unit through the communications link*.

Appellant argues, “nowhere in the cited text, or in any other section does Fujimoto appear to mention disconnecting a communication link on a telecommunication line 4 after a program has been transmitted from the host computer 5 to the medical apparatus 8.” (Appeal Br. 29).

We are not persuaded by Appellant’s argument, because Fujimoto discloses transmitting data to the *central processing unit* (FF 8), and because this transmission terminates and is not continuous (FF 9), we find it inherent in Fujimoto that the *communication link* is *disconnected* after a transmission. We also find that Fujimoto provides separate disclosures for transmitting instructions to the *remote programming apparatus* (FF 2) and transmitting data to the *central processing unit* (FF 8), such that these actions may be conducted during separate communications sessions.

The final argument about *receiving measurement data according to a collect command contained in the script program* is addressed above, as set forth at claim 47.

Claims 105 and 107-110

Initially, we note that the Appellant argues dependent claims 105 and 107-110, each of which depends from a different independent claim, together as a group (App. Br. 33). Correspondingly, we select representative claim 105 to decide the appeal of these claims, with remaining claims 107-110 falling with claim 105. *See*, 37 C.F.R. § 41.37(c)(1)(vii) (2004).

Claim 105 recites, in pertinent part, *wherein the remote processing apparatus is further configured to intermittently establish a communication link with the central processing unit and (ii) disconnect the communication link after a period of time after each establishment.*

Appellant argues, “nowhere in the cited text, or in any other section does Fujimoto appear to mention that the medical apparatus 8 both (i) intermittently establishes a communication link on the telecommunication line 4 and (ii) disconnects the communication link after a period of time after each establishment.” (Appeal Br. 33).

We are not persuaded by Appellant’s argument, because the communication between the *remote programming apparatus* and the *central processing unit* in Fujimoto is inherently *intermittent* and includes *disconnecting the communication link* because measurement data for transmission is locally stored in anticipation of transfer (FF 8), and communication is initiated by a program and is therefore not continuous (FF 8), thus meeting the claim language.

Rejection under 35 U.S.C. § 103(a)

Heinonen Prior Art

Appellant argues at claims 48, 51, 58, 59, 60, 62, 78, 79, 81, 85, 86, 88, 92, 93, 95, 99, 100, and 102 directly, or indirectly as to all claims rejected under 35 U.S.C. § 103(a), that “Heinonen et al. are not valid prior art for the 35 U.S.C. § 103 (a) rejection. Heinonen et al. was first filed in the United States on May 21, 1998. In contrast, the present application claims priority to United States Patent No. 6,101,478 to Brown (hereafter Brown '478), which was filed November 21, 1997 and fully supports all the pending claims.” (Appeal Br. 37, 45, 50, 56).

We agree with Appellant. The instant application, filed September 19, 2000, claims priority by a continuation-in-part of application 09/517140, filed March 2, 2000, which claims priority by a continuation of application 08/975774, filed November 21, 1997. Support for claims 48, 59, 60, 78, 85, 92, and 99, which introduce blood glucose measurement for patients with diabetes, is present in the 08/975774 Specification at page 21 lines 19-22. Therefore the application is entitled to priority as of November 21, 1997 for at least the diabetes/blood glucose limitations in claims 48, 59, 60, 78, 85, 92, and 99 which led to the Examiner's application of Heinonen for all claims rejected under 35 U.S.C. § 103(a).

Heinonen, which was published in 2002, would be available as prior art under 35 U.S.C. § 102(e) as of its U.S. filing date of May 21, 1998, but no benefit of the foreign application is given under 35 U.S.C. § 102(e) for prior art purposes. *In re Hilmer*, 359 F.2d 859 (C.C.P.A. 1966). Therefore, Heinonen, with a 102(e) date of May 21, 1998, is not valid prior art in the instant application, with a priority date of November 21, 1997, and the

rejection under 35 U.S.C. § 103(a) of claims 48, 49, 51-54, 58-62, 78-83, 85-90, 92-97, 99-104, and 106 cannot be sustained.

New Grounds of Rejection under 35 U.S.C. § 103(a)

Pursuant to 37 CFR § 41.50(b) (2006) we enter a new grounds of rejection under 35 U.S.C. § 103(a) over Fujimoto of claims 48, 49, 51-54, 58-62, 78-83, 85-90, 92-97, 99-104, and 106.

We find that Fujimoto discloses in the Background the desirability of a remote measurement system for application to patients undergoing continuous ambulatory peritoneal dialysis (Col. 1, ll. 49-57). It is our understanding that remote monitoring is desirable in other situations where diseases require monitoring, such as in the case of diabetes. We therefore find it would have been obvious to one of ordinary skill in the art to substitute a blood glucose monitoring device in place of the blood pressure or EKG equipment disclosed in Fujimoto, and extend the application of the Fujimoto system and apparatus to patients with diabetes. *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007).

We accept as our own the Examiner's findings, other than those relying on Heinonen, as to claims 48, 49, 51-54, 58-62, 78-83, 85-90, 92-97, 99-104, and 106 (Answer 6-13). Among these claims, claims 48, 51, 58-60, 62, 78, 79, 81, 83, 85, 86, 88, 89, 90, 92, 93, 95-97, 99, 100, and 102 recite limitations concerning the measurement of blood glucose levels, and remaining claims 49, 52-54, 61, 80, 82, 87, 94, 101, 103, 104, and 106 depend from claims 48, 59, 60, 78, 79, 86, 93, 99, and 100.

In addition to the Examiner's findings, we add the following findings of obviousness for claims 49, 52-54, 61, 80, 83, 87, 89, 94, 97, 101, and 103.

Claims 49 and 61

We find Fujimoto includes a workstation in the form of a host computer and display unit (FF 2, 10), and find it inherent that this system includes the necessary peripherals and programming to *comprise script entry programming configured to (i) receive input information from the health care provider and (ii) communicate the input information to the central processing unit*. This is because the display unit and peripherals are a user terminal on a host computer which we find is a *workstation*, thus meeting the claim language.

Claim 52

We broadly interpret *script interpreter* to be portions of internal computer workings for the execution of software programs (FF 1), which one of ordinary skill in the art would recognize as being disclosed by Fujimoto as integral to the medical terminal equipment 1 and host computer 5 (FF 2).

Claim 53

We find Fujimoto discloses that a doctor may create a customized series of questions for an individual patient (FF 5). We also find Fujimoto discloses that each medical terminal equipment 1 (*remote processing apparatus*) has a registration number associated with it (FF 11), and if multiple patients will share use of a medical terminal equipment 1 (*remote processing apparatus*), then patient identification numbers must be input “in advance” of use (FF 12). We further find that one of ordinary skill in the art would recognize that Fujimoto thus discloses the association of a *unique patient identification code associated with the individual* in the form of either a patient number or unit registration number associated with the

script/questions, so that the customized series of instructions/questions can be directed to the correct patient, thus meeting the claim language.

Claim 54

We find that Fujimoto discloses a form of a *pointer* that is *related to the individual* in the form of the patient identification numbers and unit registration numbers (FF 11, 12) tied to the unique questions created by the doctor for an individual patient (FF 5), and that Fujimoto also discloses storing results from thousands of patients at the host computer/*central processing unit* (FF 13). The artisan of ordinary skill in the art would recognize that this storage of individual results would necessitate that this *pointer* be stored in a *look-up table*, or similar index, to enable selective access to the appropriate records in the host computer's storage.

Claims 80, 87, 94 and 101

We find, as set forth above at claim 47, that Fujimoto discloses a *workstation* at the host computer 1/*central processing unit* (FF 10), and we further find that one of ordinary skill in the art would recognize that viewing the report at the host computer 1/*workstation* (FF 14) is equivalent to *transmitting the report to a workstation connected with the central processing report*, thus meeting the claim language.

Claims 83, 89, 97 and 103

We find that Fujimoto discloses instructions to cause the *remote processing apparatus* to instruct the patient to connect a blood pressure arm cuff to their arm in order to take a blood pressure measurement (FF 15). We also find that Fujimoto discloses that *measuring devices* are “removably connected” to the remote processing apparatus (FF 16). We find one of ordinary skill in the art would recognize that it would be obvious to extend

Fujimoto's instructions to connect the arm band, to additionally instruct the patient *to connect the blood glucose measurement device to the remote processing apparatus*, because this is a common-sense extension based on the need to ensure a removable, necessary component is connected before proceeding. *KSR* at 419-420.

CONCLUSIONS OF LAW

The Examiner did not err in rejecting claims 47, 55-57, 77, 84, 91, 98, 105, and 107-110 under 35 U.S.C §102(b) over Fujimoto.

The Examiner erred in rejecting claims 48-49, 51-54, 58-62, 78-83, 85-90, 92-97, 99-104, and 106 under 35 U.S.C §103(a) over Fujimoto and Heinonen.

We enter a new grounds of rejection pursuant to 37 CFR § 41.50(b) (2006) under 35 U.S.C. § 103(a) over Fujimoto of claims 48-49, 51-54, 58-62, 78-83, 85-90, 92-97, 99-104, and 106.

DECISION

For the above reasons, the Examiner's rejection of claims 47, 55-57, 77, 84, 91, 98, 105, and 107-110 is **AFFIRMED**. The Examiner's rejection of claims 48-49, 51-54, 58-62, 78-83, 85-90, 92-97, 99-104, and 106 is **REVERSED**. We enter a new grounds of rejection pursuant to 37 CFR § 41.50(b) (2006) under 35 U.S.C. § 103(a) over Fujimoto of claims 48-49, 51-54, 58-62, 78-83, 85-90, 92-97, 99-104, and 106.

This decision contains new grounds of rejection pursuant to 37 C.F.R. § 41.50(b) (2008). 37 C.F.R. § 41.50(b) provides "[a] new ground of

rejection pursuant to this paragraph shall not be considered final for judicial review.”

37 CFR § 41.50(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

- (1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner

- (2) Request rehearing. Request that the proceeding be reheard under § 41.52 by the Board upon the same record

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2006).

AFFIRMED-IN-PART; 37 C.F.R. § 41.50(b).

MP